GSM-Nano

NANO
100.090X

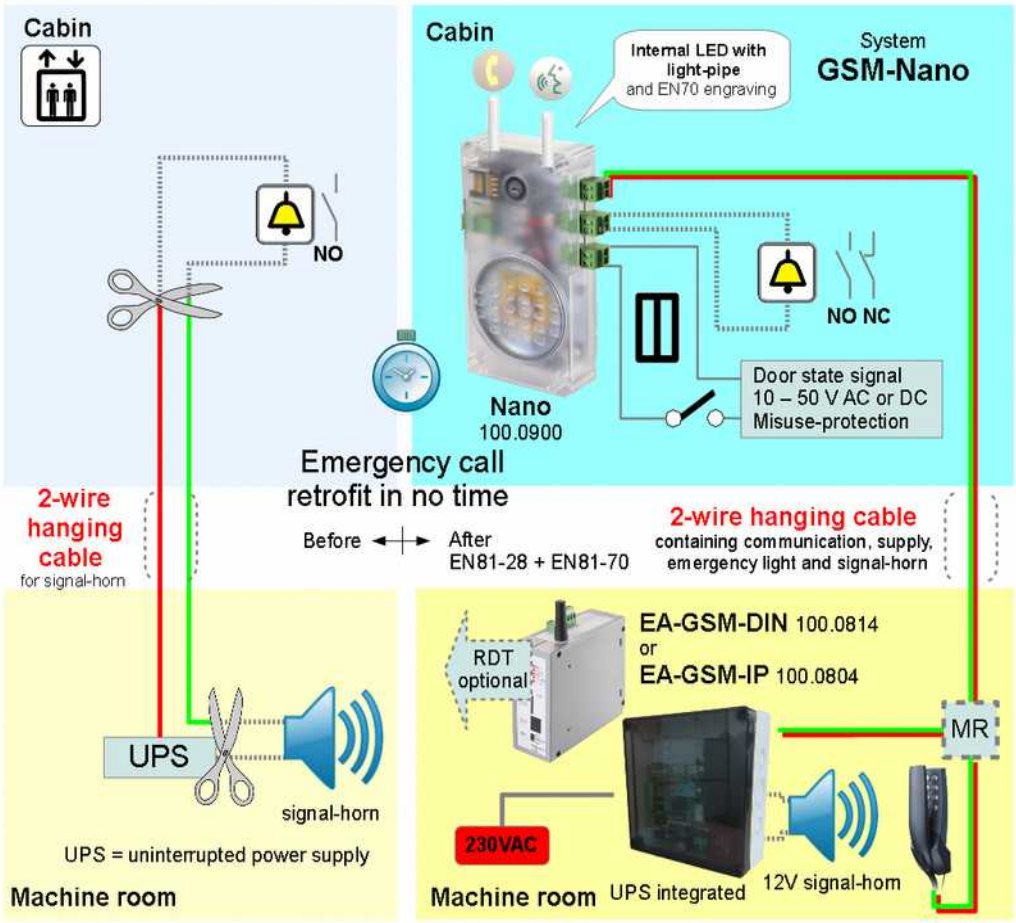
EA-GSM-IP
100.0804B

EA-GSM-DIN
100.0814B

4901

Contents

1 Overview



- The connection between the communication unit Nano and the EA-GSM-Interface needs **two wires only** (existing wires of alarm-horn may be used).
- The emergency call over GSM is a cost effective **alternative to landline installation**.
- No costs for an **analogue landline**.
- You may **change the provider** at any time.
- The elevator can already be used during **construction**.
- Programming over **SMS** (Calling numbers, identification and parameters).
- Connectivity for emergency button, misuse-protection-signal and external emergency light.
- Interface to connect to the elevator control (e.g. Böhnke+Partner, Kollmorgen, KW, L+L, Newlift, Rekoba, RST, Strack etc.) ☞ use as **GSM-Modem**.

Safety note

- The location of the GSM-antenna **should be stationary** (e.g. in the machine room) in order that a stable reception is guaranteed.
- In case of an emergency call retro-fit (SNEL, ESBA), where no empty wires in the hanging cable are available, the EA-GSM-Interface can be located on top of the cabin, providing that the **GSM reception is guaranteed for the entire cabin travel** (Simple GSM reception diagnosis by SMS).
- If the GSM reception is **inadequate or fails completely**, the elevator must **automatically be set out of order**: for example, command to the elevator control to move to the ground floor. Therefore the EA-GSM-Interface provides a relay contact (NO or NC).
- **Beware of using prepaid cards:** in case of an emergency there might be no credit left**. Better use a subscription or prepaid with topping up via auto reload**.
- **To ensure that the correct number is dialled even with roaming, the calling numbers must be entered including the country code.**
- **Check battery and reception values with every maintenance (☞ 15.1).**

2 EA-GSM-IP (100.0804B)

2.1 Specification

Article-No:	100.0804B
Power supply:	230 VAC / 50 Hz / max. 15 W Standby: 5 W + 2 W during connection + load on 12VOUT + load on EL + load in SIR + 5 W during battery charge (max)
Backup battery:	12 V / 1.2 Ah (100.0880) Typical charging time: 8 h
Dimension (L x W x H):	182 x 180 x 63 mm
Housing:	ABS, IP67
Weight:	650 g (without battery)
GSM:	Dual-Band 900/1800 MHz

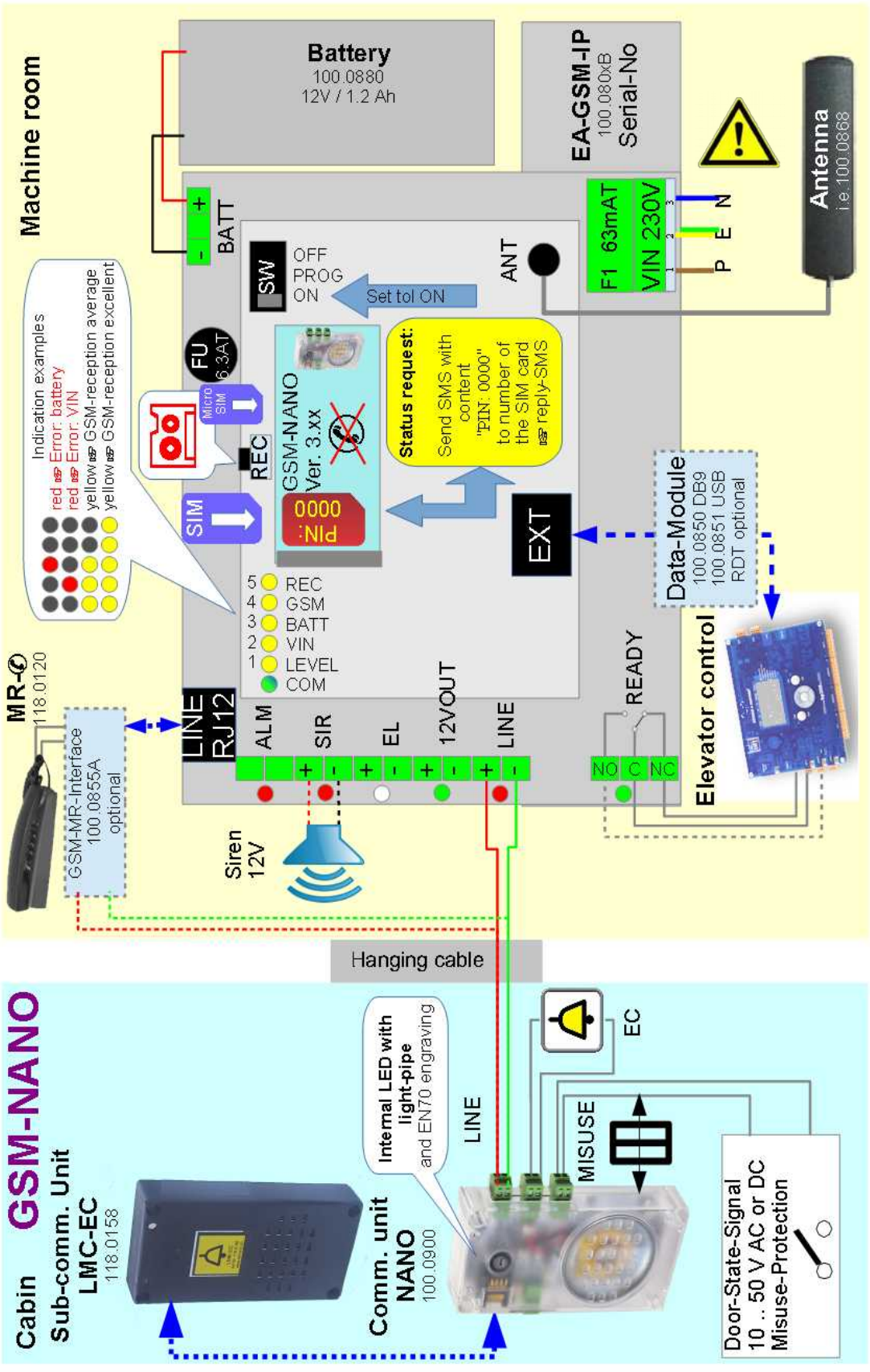
2.2 Connectors

	Comment	
ANT	GSM-Antenne SMA	GSM-Antenna
ALM	Alarm-input	1,2: active if signal 10 .. 50 V AC or DC
BATT	Connector for 12 V / 1.2 Ah battery	1: +BATT (red) 3: -BATT (black)
EL	Emergency light output 12 V / max 300mA	5: + 6: -
EXT	Data interface	For modem use
F1	Mains fuse	63 mA slow
FU	Battery fuse	6.3 A slow
LINE **LINE RJ12**	Connection to communication unit Nano	9: +LINE 10: -LINE
READY	Relay: Operation control: „System ready"	1: Normally closed contact (NC) 2: C 3: Normally open contact (NO)
REC	Recording Button	Record announcement 12s during connection ☞ 7
SIM **Micro SIM**	SIM-card holders	PIN:0000 PIN:1010 M2M-SIM-Card ☞ **Check label on Software-module**
SIR	Siren-Output *) 12 V / max 300mA	3 + 4: -
SW	Mode switch	OFF: GSM-Modem use only (transparent) PROG: Programming of EA-GSM-Interface ON: Emergency call and GSM-Modem use
12VOUT	Uninterrupted power output 12V / max. 300 mA	7: +12V 8: GND
230V	Mains power connector	1: Neutral 2: Earth 3: Live (F1)

*) the SIR output is active,
- as along as the emergency button is active
- if the communication unit Nano is not connected
- in case of any problem (short tone every 10s, can be switched off ☞ 10.1)

2.3 Wiring

The device has been designed solely for operation on a 230 VAC / 50 Hz supply.
Work on the 230 VAC power supply must be carried out by a qualified electrician.
Doing so the applicable accident prevention regulations must be observed, to avoid electric shock, the mains has to be disconnected (trip the circuit breaker).



3 EA-GSM-DIN(100.0814B)

3.1 Specification

Article-No:	100.0814B (Voice + Data)
Power supply:	14.3 VDC +/- 0.15 V Standby: 2.5 W + 2 W during connection + load on 12VOUT + load on EL + load in SIR + 5 W during battery charge (max)
Backup battery:	12 V / 1.2 Ah (100.0880) Typical charging time: 8 h
Dimension (L x W x H):	45 x 118 x 138 mm
Housing:	DIN
Weight:	400 g (without battery)
GSM:	Dual-Band 900/1800 MHz

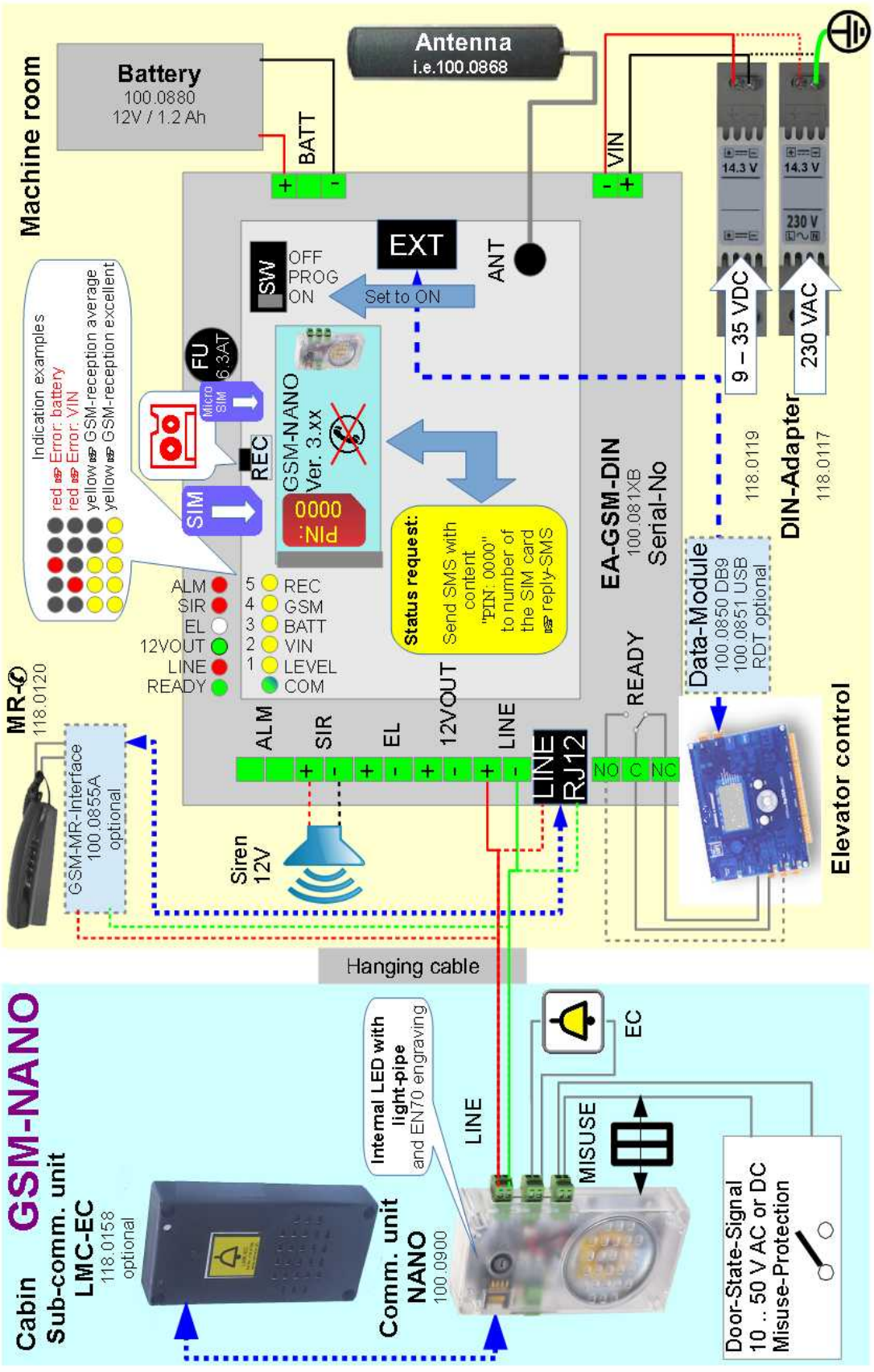
3.2 Connectors

	Comment	
ANT	GSM-Antenne SMA	GSM-Antenna
ALM	Alarm-input	1,2: active if signal 10 .. 50 V AC or DC
BATT	Connector for 12 V / 1.2 Ah battery	1: +BATT (red) 3: -BATT (black)
EL	Emergency light output 12 V / max 300mA	5: + 6: -
EXT	Data interface	For modem use
FU	Battery fuse	6.3 A slow
LINE	Connection to communication unit Nano	9: +LINE 10: -LINE or RJ12
READY	Relay: Operation control: „System ready”	1: Normally closed contact (NC) 2: C 3: Normally open contact (NO)
REC	Recording Button	Record announcement 12s during connection ☞ 7
SIM **Micro SIM**	SIM-card holders	PIN:0000 PIN:1010 M2M-SIM-Card ☞ **Check label on Software-module**
SIR	Siren-Output *) 12 V / max 300mA	3 + 4: -
SW	Mode switch	OFF: GSM-Modem use only (transparent) PROG: Programming of EA-GSM-DIN ON: Emergency call and GSM-Modem use
12VOUT	Uninterrupted power output 12V / max. 300 mA	7: +12V 8: GND
14V3IN	Supply voltage	+14V3IN -14V3IN

*) the SIR output is active,
- as along as the emergency button is active
- if the communication unit Nano is not connected
- in case of any problem (short tone every 10s, can be switched off ☞ 10.1

3.3 Wiring

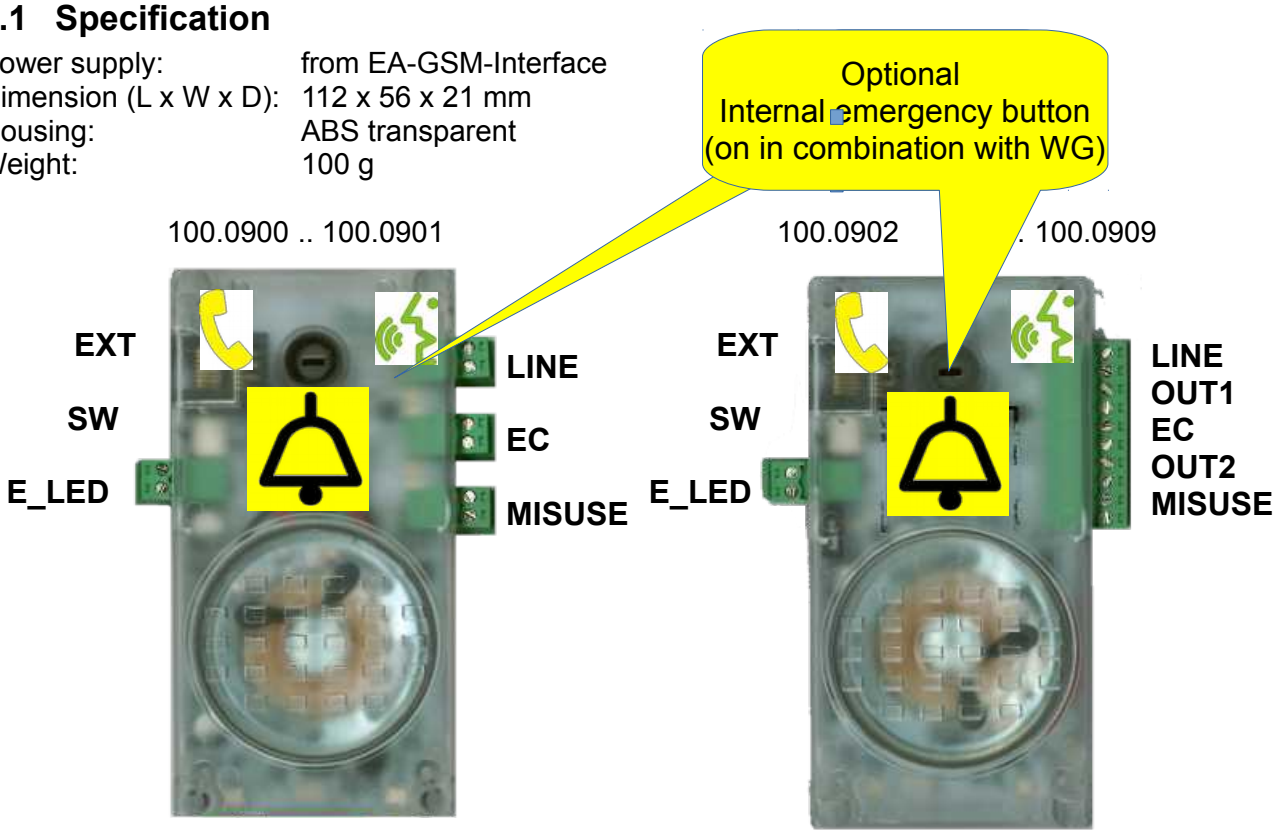
Work on the 230 VAC power supply must be carried out by a qualified electrician.
Doing so the applicable accident prevention regulations must be observed, to avoid electric shock, the mains has to be disconnected (trip the circuit breaker).



4 Communication unit Nano (100.090X)

4.1 Specification

Power supply: from EA-GSM-Interface
Dimension (L x W x D): 112 x 56 x 21 mm
Housing: ABS transparent
Weight: 100 g



Article-No	Name	Water resistant	🔔	OUT1	OUT2	Output function 50 V / 120mA
100.0900	NANO					
100.0900EC	NANO		✔			
100.0901WG	NANO	✔				
100.0902	NANO-EN70		✔	📞	📶	EN81-70 external symbols
100.0903WG	NANO-EN70	✔				
100.0904	NANO-SIR		✔	NO	NC	Siren
100.0905WG	NANO-SIR	✔				
100.0906	NANO-K2		✔		NC	System alarm
100.0907WG	NANO-K2	✔				
100.0908	NANO-K3		✔		NO	Door phone Remote controlling
100.0909WG	NANO-K3	✔				

EN81-70 Symbols	Comment	Additionally (only internal LED / Light-pipes)
Green 📶	Permanent on: during voice connection	Flashes every 5 seconds (1x=NO, 2x=NC): Nano is ready
Yellow 📞	During Misuse-protection, time-out and dial-up	

4.2 Connectors

	Comment	
EC Emergency-contact	Potential free emergency-contact Automatic detection of the contact type on power (e.g. voltage on LINE). NO = Normally open (1xPiep and every 5s a green flash) NC = Normally closed (2xPieps and every 5s a green double-flash)	
LINE	Connect communication unit over two wires with the EA-GSM-Interface. Notes: • Check polarity ☞ same polarity as on EA-GSM-Interface ☞ If the polarity is wrong the emergency light is on continuously. • For **retro-fits** you may use the **existing two wires of the siren**. The siren is then connected to the switched output (+12V-Siren and +12V-GND) of the EA-GSM-Interface.	
MISUSE	Misuse-protection door-signal-input: (active) = 10 to 50 V AC or DC If during this time-out (= max. travel time) the door-signal changes, the emergency call will be stopped.	
E_LED Emergency-light	Emergency-light output for external LED: 6V DC / 20 mA The **emergency-light** is on in case of a **mains loss** on the EA-GSM-Interface and in case of any failure ☞ 10.3. SW = Slide switch. Switches between internal LED and external emergency-light	
EXT	e.g. for connecting an additional sub-communication unit EA-LMC70	
	Additional output functions with 100.0902..100.0909	
OUT1 / OUT2	Closed to activate external EN81-70-symbols	contact max. 50V / 120mA
K2	Normally open contact:: Opens in case of emergency call Closes again, if MISUSE-Signal changes (Door state)	
K3	Normally open contact:: (i.e. Door phone) via DTMF-sequence * 2 ☞ 2 seconds active * 3 ☞ 4 seconds active * 5 ☞ 3 seconds active, 1 second inactive, 3 seconds active	
SIR	NO: Closed, during pressing emergency button NC: Open, during pressing emergency button	

Left detail

EXT SW E_LED

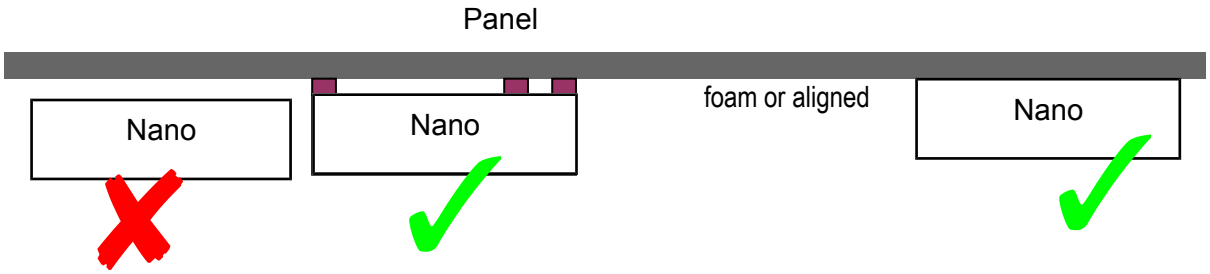
5 Accessories

Picture	Supply voltage	Art.No.
	**DIN-Switching power supply EA-ACDC-USV** Supply voltage: 230 VAC / 50 Hz, Output voltage: 14.3 VDC / 10 W	118.0117
	**DIN-Switching power supply EA-DCDC-USV** Supply voltage: 9 to 35 VDC, Output voltage: 14.3 VDC / 10 W	118.0119
	**Battery** 12 V / 1.2 Ah	100.0880
Picture	**Antenna material** **www.leitronic.ch/Documents/GSM-Empfang-Antenne.pdf**	**Art.No.**
	**Wall-antenna** cable 5m SMA (Outdoor)	100.0864
	**Directional Antenna** cable 5m SMA, 10dBm gain (Outdoor)	100.0866
	**Extension-cable** 10m SMA	100.0863
Picture	**Serial interface refer to special document:** **www.leitronic.ch/Documents/100.085x_Data-Modules-GB.pdf**	**Art.No.**
	**Data-Module-DB9** e.g. Newlift DB9	100.0850
	**Data-Module-USB** e.g. Böhnke+Partner USB isolated	100.0851
Picture	**Remote-communication unit to communicate with cabin**	**Art. No.**
	**GSM-MR** (DIN-mounting, pluggable screw terminal and RJ12-jack) Machine room solution extension for DTMF capable telephone ☞ i.e. 118.0120	100.0855A
	**Wall mount telephone** incl. cable 3m ☞ machine room solution	118.0120
Picture	**Other accessories**	**Art.No.**
	**LMC70** (pluggable screw terminal and RJ45-jack) Supply voltage: 8 - 35 V DC i.e. +12V from EA-GSM-Interface 2xEN81-70 indicator (yellow/green): internal with light pipes, external symbols 1xInput for emergency button: potential free	118.0155
	**LMC-EC** (pluggable screw terminal and RJ45-jack) 1xEmergency-Button (Normally open: integrated or external) 1xMicrophone + 1xSpeaker	118.0158
	**EC-MIC** (screw terminal and RJ45-jacks) 1xEmergency button 1xMicrophone	118.0152
	12V-SIR siren horn	100.0020

6 Mounting

6.1 Communication unit Nano

- Once mounted, the speaker and the **microphone** in particular should **not be covered**, otherwise the communication quality decreases (reduced volume, poor hands free quality).
- Make sure the **microphone hole** and the panel hole **fit**.
- The sub-communication unit must be mounted **directly** behind the panel **without any gap**, otherwise there will be an acoustic feedback. If necessary insulate speaker and microphone room acoustically using foam or rubber.

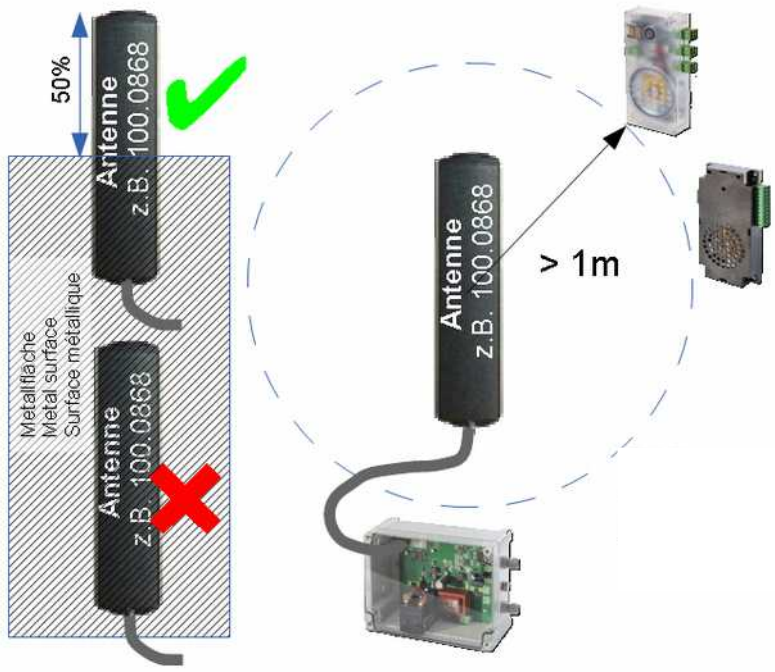


For mounting accessories (panels, drilling templates, transparent frames, emergency lights, etc.) have a look at our special document.
http://www.leitronic.ch/Documents/100.0xxx_Retrofit_Material-GB.pdf

6.2 GSM-Interface

Find a suitable location for the EA-GSM-Interface according to the reception intensity indicator on the mobile phone.

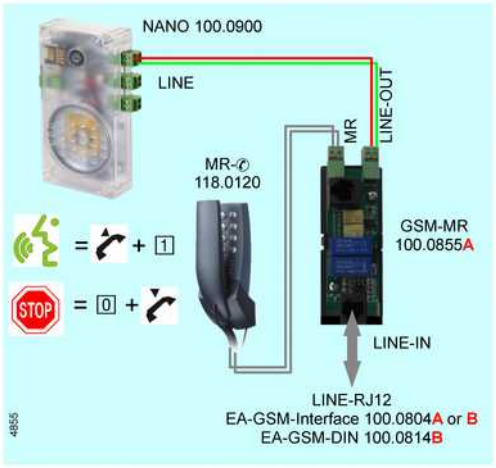
Recommendation: stationary location in the machine room or shaft assembly, not in the vicinity of radio transmitters and interference sources. If there are no free wires in the hanging cable, the EA-GSM-Interface can be mounted on top of the cabin. In any case, the **GSM receive** must be **checked over the entire travel of the cabin** ☞ 7.1. Check Reception! Note that the **level-indicator** may **be delayed**.



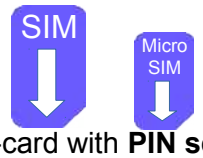
7 Start-up

- Connect **communication unit, alarm-horn** and **emergency button** according to wiring plan.
- Connect **elevator control** according to wiring plan (Relay-contact NO or NC: System ready).

- Optional machine-room communication using GSM-MR-Interface (100.0855A):
  - **NANO LINE ↔ LINE_OUT**
  - **LINE-IN ↔ LINE-RJ12**
  - **MR**- phone ↔ **MR**



- Connect **antenna**.



- Insert SIM-card with **PIN set to 0000**.

☞ To set PIN to 0000 use any mobile phone:
****04* <old PIN> *0000*0000# +✆**
or insert M2M-SIM-Card with PIN 1010.

- Connect the **battery** 100.0880.

Work on the 230 VAC power supply must be carried out by a qualified electrician.
Doing so the applicable accident prevention regulations must be observed, to avoid electric shock, the mains has to be disconnected (trip the circuit breaker).

- Connect power supply **230V** mains (EA-GSM-IP: 100.0804B)
  or **14V3IN** (EA-GSM-DIN: 100.0814B)
  - either from 230 VAC using DIN-adapter 118.0117.
  - or from 9 to 35 VDC using DIN-adapter 118.0119.

- After two minutes the LEVEL indicators are showing the GSM reception. LED_COM flashes green every 3 seconds.
  ☞ Stick the antenna where the LEDs LEVEL show maximum reception.
- If you **call NANO**, the unit indicates call with ringing sound and activates green LED (speak).
  ☞ To record the individual announcement press the REC-button
  ☞ Recording can be also done remotely ☞ 13.1.
- The calling-numbers can be **programmed via SMS**, by sending an SMS ☞ 10.
- A short **pressing of the emergency button** activates the alarm-horn. If you press longer than the programmed debounce time-out, you will hear a dial tone during the selected misuse time-out.
  If there is **no change of the MISUSE signal** the first calling-number will be dialled.
- Test optional MR-communication ☞ 14.

7.1 Reception test

- If the EA-GSM-Interface is mounted on the cabin roof, send the cabin to the location with the **worst** GSM reception (check reception with LED1. .5). Attention: The level-indicator may be delayed.
- Start test call and check if the connection is established ☞ terminate test call.
- **Re-start test call** ☞ Connection must be established ☞ Stay in connection and move the cabin over the complete shaft ☞ Check if connection remains stable ☞ Terminate test call ☞ Send SMS to verify GSM-levels: `Rssi:<mom>(<min>-<max>)`
  ☞ The minimum value <min> must be higher than 5!
  ☞ **Report** Rssi-Value with date (see last page)!

- If a problem occurred during test, change or optimize the placement of the EA-GSM-Interface.
- If you cannot find an improved placement use an external antenna ☞ e.g. Article-no 100.0864 and / or extension cord 100.0863.

8 Indicators

8.1 EA-GSM-Interface

COM	Comment
Green	SIM-error: flashes every 1/2 second During network registration: flashes every second Flashes every 3 seconds if connected to the GSM network
Blue	Elevator Control in connection: serial interface

LED	Reception level ☞ yellow or Error code ☞ red	
LEVEL	GSM Level poor	
VIN	GSM Level low	Problem with supply voltage
BATT	GSM Level medium	Problem with battery/charging
GSM	GSM Level high	Problem with GSM-Network or Roaming or line permanently busy
REC *)	GSM Level excellent	Problem with GSM-reception (Level Alarm)
	During a recording lit blue, during a playback blinks blue	

LED	Comment
ALM	Indicator of alarm input activation
EL	Indicator of emergency-light output
LINE	Indicator telephone line busy
OK (READY)	Ready-indicator for GSM-Interface, if • Battery and battery-charging ok • SIM-card inserted with correct SIM-PIN • GSM-reception sufficient Otherwise the elevator may not perform any further trips. Note: OK (READY) can be delayed up to two minutes (GSM-reception)
SIR	Indicator of trouble output
12VOUT	Indicator of 12V USP voltage

8.2 Communication unit Nano

LED	Comment
Green	Flashes every 5 seconds (1x=NO, 2x=NC): Nano is ready Permanent on: In voice connection
Yellow	During Misuse-protection time-out and dial-up

9 Troubleshooting

Faults and errors are displayed by the various indicators (LED) ☞ 8

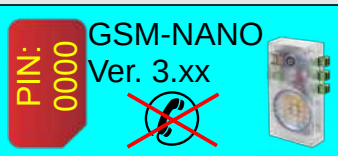
Detailed error information available through a status inquiry via SMS or automatically by **Status-SMS** in case of a new error (if <Send Alarm> is ✉ ☞ Table 10.3)

☞ send SMS with content
PIN:0000
PIN:1010 M2M-SIM-Card
☞ Reply-SMS ☞ 10.3

You only get an answer if the PIN is correct and the SMS is not longer than 160 characters!

10 Programming via SMS

Programming is done by **SMS**. An SMS containing `PIN:0000` will be evaluated and answered ☞ 10.2 to the sender. All **commands** are written in **`CAPITAL LETTERS`**.

SMS-Commands	Comment	Reply-SMS
`PIN:0000` `PIN:1010` M2M-SIM-Card Note: 4-digits ☞ **Check label on Software-Module**		`leitronic.ch Nano 3.xx ready`
`NEW:1234`	Change PIN to 1234 and activate SIM-card protection Note: PIN 4-digits	`New Pin:1234`
`CALLNx=`<Calling-No.>␣ `CALLN1` to `CALLN9` will be called until DTMF 0 acknowledges call	Calling-numbers x=1..9 completed with a space (max. 24 digits) `CALLN9` (Routine-No.)	`CallNx:`<Calling-number>
`ALARM=`<Alarm-number>␣	**Status-SMS** number with +country code e.g. +41 completed with a space (max. 24 digits)	`Alarm:`<Alarm-number>
`ALARM=OFF`	Disable **Status-SMS**	`Alarm:OFF`
`RESET`	Set to factory defaults	`Reset`

10.1 Advanced settings

Advanced settings can be read-out or changed as following:

`EE_R:`<adresse>	Read `EEPROM` <adresse> is 4-digits	`adr:`<adresse>:<read out value>
`EE_W:`<adresse>=<value>	Write `EEPROM` <adresse> is 4-digits <value> is 3-digits (000..255)	`adr:`<adresse>:<written value>

<adresse>	Function	<value>	Default
`0001`	Signal errors on alarm-horn	000 disabled 001 enabled	001
`0002`	Connection time-out	030 to 255 s	120
`0003`	Debounce time: Emergency button (Nano)	000 to 255 * 20ms	050 = 1s
`0018`	Debounce time: Alarm-input ALM until **Status-SMS**	000 to 255 * 20ms	050 = 1s
`0023`	Routine call interval (CALLN9)	000 to 255 h	072
`0024`	Misuse protection time=max. cabin travel time	000 to 255 s	000
`0127`	Announcement every x seconds	000 off 001 to 255 s	000

Example:
PIN=0000, **Calling-No. 1**: 044 111 22 33, **Calling-No. 2**: 044 111 22 44, **Routine-No. 9**: 044 123 4 567, **Status-SMS**: +41 79 100 10 10, max. cabin travel time= 20 s
☞ send SMS with content
`PIN:0000 CALLN1=0041441112233 CALLN2=0041441112244 CALLN9=0041441234567 ALARM=+41791001010 EE_W:0024=020`
☞ Reply-SMS
`leitronic.ch Nano 3.xx ready, CallN1:0041441112233 CallN2:0041441112244, CallN9:0041441234567, Alarm:+41791001010, adr:0024:20, Batt:96, Ri:18, Charge:255, Power:34, last Call:26, Rssi:12(9-15), Errors:-----,-----,---`
(limited to 160 characters)

10.2 Reply-SMS

Example of a **Reply-SMS**:

```
leitronic.ch Nano 3.xx xx,(adr:<adresse>:<value>),(New Pin:<new PIN>),
(Alarm:<alarm number>), Batt:xx, Ri:xx, Charge:xx, Power:xx, last Call:xx,
Rssi:xx(xx-xx), Errors:-----,-----,---
```

Label	Comment	Value xx	Info
Nano 3.xx	Status Software-Version	ready not ready	System ready to use System not ready
Batt:	Battery voltage	0 to 97	**Calculate voltage: 0.145 * <value>** e.g. 97 ☞ 14.05V or 92 ☞ 13.34V
Ri:	Battery-resistance	8 to 70 ①	8 – 23 ☞ battery o.k.
defect!	Battery- or Fuse F2 defect	-	Battery failure or blown fuse F2 6.3AT ☞ check and replace
Charge:	Battery charge value	0 to 255	Charge: * 255s / Discharge: * 15s
Power:	Battery charging voltage	0 to 38	≤ 13 ☞ Supply voltage missing ≤ 24 ☞ Supply voltage too low to charge battery 30 ☞ Supply voltage sufficient
last Call:	Hours since last call	0 to 255	in hours
Roaming	GSM-Roaming		Not home GSM-network => higher costs
Rssi: <mom> (<min>-<max>)	GSM-Level Momentary Min. since last call Max. since last call	0 to 31	**Calculate level: 2*<Value> - 113dB** e.g. 10 ☞ 2*10-113 = -93db GSM poor ≥ 5 LED1 GSM low ≥ 10 LED2 GSM medium ≥ 15 LED3 GSM high ≥ 20 LED4 GSM excellent ≥ 25 LED5
Errors	**Error-No. 0 to 12** i.e. -----+,---*-,--*	- + * ,	-: inactive *: active ,: separator before error 5/10 +: delayed error not jet active

① Attention: a new accumulator can show higher values during the first hours

Example:
Change PIN from 0000 to 1234, set Alarm to +41791234567, set EEPROM 0018 to 100
☞ send SMS with content

```
PIN:0000 NEW:1234 ALARM=+41791234567 EE_W:0018=100
```

☞ Reply-SMS

```
leitronic.ch Nano 3.xx ready, New Pin:1234, Alarm:+41791234567,
adr:0018:100, Batt:96, Ri:18, Charge:255, Power:28, last Call:26,
Rssi:8(5-15), Errors:--*-+,-----,---
```

☞ **Error 0 to 12**: 2 active: GSM poor
4 in delay: Supply voltage too low

If you **do not get any Reply-SMS**, please check the following points:

a) EA-GSM-Interface is **not connected** to the GSM-**network** ☞ check LED_GSM
b) **PIN-Code** is incorrect
c **SIM number** is incorrect
d) **No money** left on SIM-card
e) Mode switch **SW1 not on ON**
f) **SMS is too long (max. 160 characters!)**

10.3 Automatic Status-SMS

The Status-SMS will be sent to the **defined alarm-number** `ALARM= ␣`**, completed with a space**.
To disable the **Status-SMS** ☞ send SMS with content:

`PIN:0000 ALARM=OFF␣`
`PIN:1010 ALARM=OFF␣` M2M-SIM-Card

Example:
Signal on input ALM ☞ SMS with content:
`leitronic.ch Nano 3.xx ready, Alarm X4, Batt:96, Ri:18, Charge:255, Power:34, last Call:26, Rssi:12(9-15), Errors:*----,-----,---`

Errors	< State / Error>	READY (OK)	Emergency light	Delayed	Send Alarm	SMS content	Error code LED ❍ off ❍ could be on ● on: LEVEL	VIN	BATT	GSM	REC	Test interval	Send Restore	Restore-SMS content
0	Alarm X4 / ALM	●	Off	0	✉	Alarm X4	❍	❍	❍	❍	❍	(50)*20ms	-	No Alarm X4
1	Supply voltage missing	●	On	0	-	Power off	❍	●	❍	❍	❍		-	Power on
2	GSM poor	●	On	15 s	✉	GSM poor	❍	❍	❍	❍	●	2 s	-	GSM ok
3	GSM Roaming	●	On	0	✉	Roaming	❍	❍	❍	●	❍	2 s	-	Home
4	Supply voltage too low to charge battery	●	Off	15 s	✉	Power poor	❍	●	❍	❍	❍		✉	Power not poor
5	No call within routine interval	●	On	0	✉	No routine call	❍	❍	❍	❍	❍	(74) h	-	Routine call ok
6	Unacknowledged calls	●	On	0	✉	Emergency Call	❍	❍	❍	❍	❍		✉	Emergency ended ②
7	Battery not charged within 24 h	●①	On	0	✉	Charge problem	❍	❍	●	❍	❍	24 h	✉	Charge ok
8	No or bad battery or fuse F2 defect or battery test circuit defect (Ri<10)	●①	On	0	✉	Battery failure	❍	❍	●	❍	❍	1h	✉	Battery ok
9	GSM bad	❍	On	15 s	✉	GSM bad	❍	❍	❍	❍	●	2 s	✉	GSM ok
10	No GSM network or not registered or mode switch SW1 not on ON	❍	On	0	✉	No GSM	❍	❍	❍	●	❍		✉	GSM registered
11	Nano not connected	❍	On	0	✉	Line problem	❍	❍	❍	●	❍	1 h	✉	Line OK
12	Battery end	❍	Off	0	✉	Battery end	❍	❍	●	❍	❍	2 s	✉	Charging

① from V3.15: Errors 7 + 8 ☞ Ready (OK)
Check battery value with every maintenance ☞ replace if Ri> 23 (☞ 15.1)
② Emergency ended: Door-state changes / Alarm acknowledged by DTMF 0 / New connection

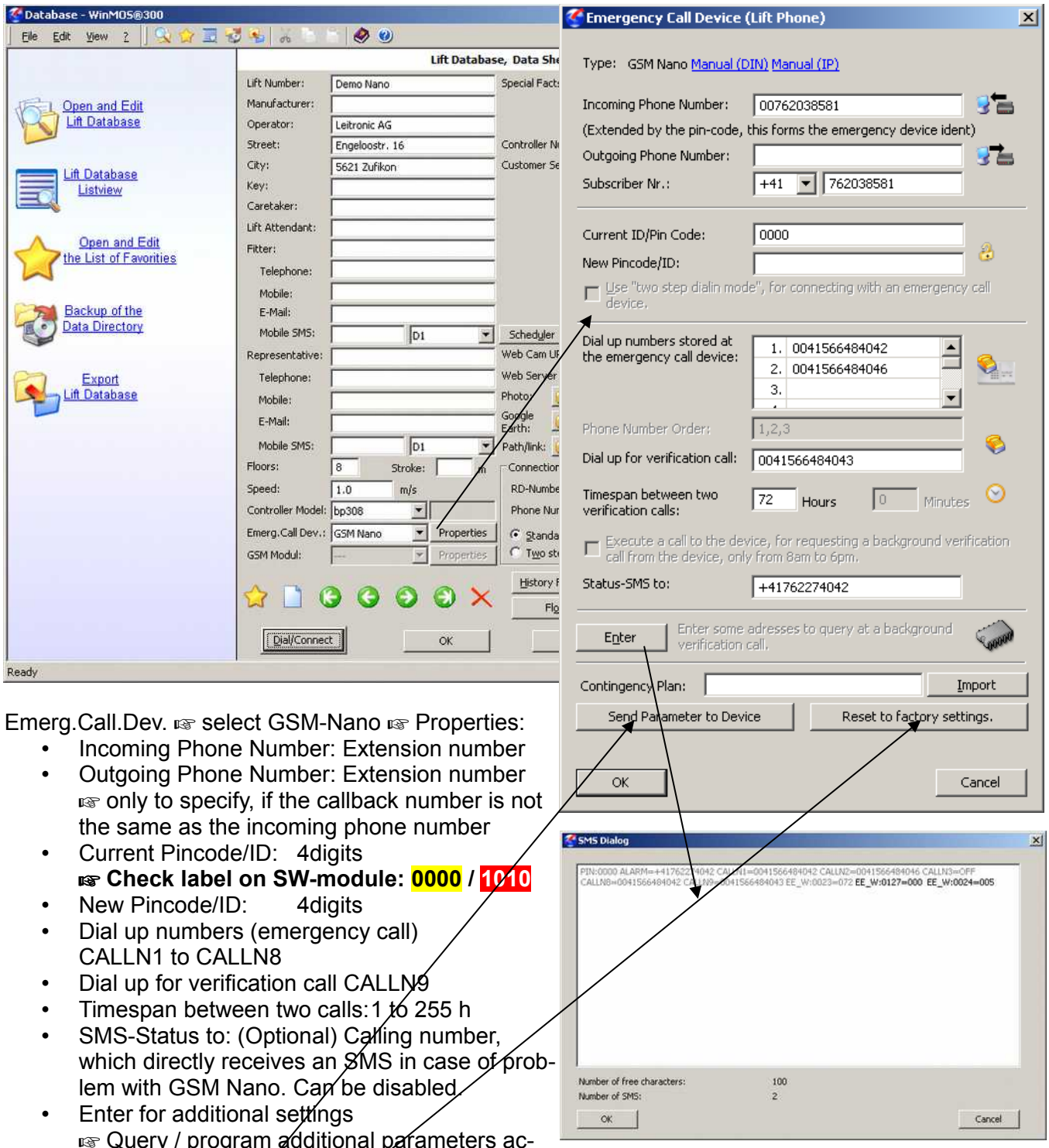
11 Programming via APP

Android: http://www.leitronic.ch/Documents/nanoconfig.apk

12 Programming via WinMOS®300

12.1 Database specification

For each GSM-Nano create a data sheet:



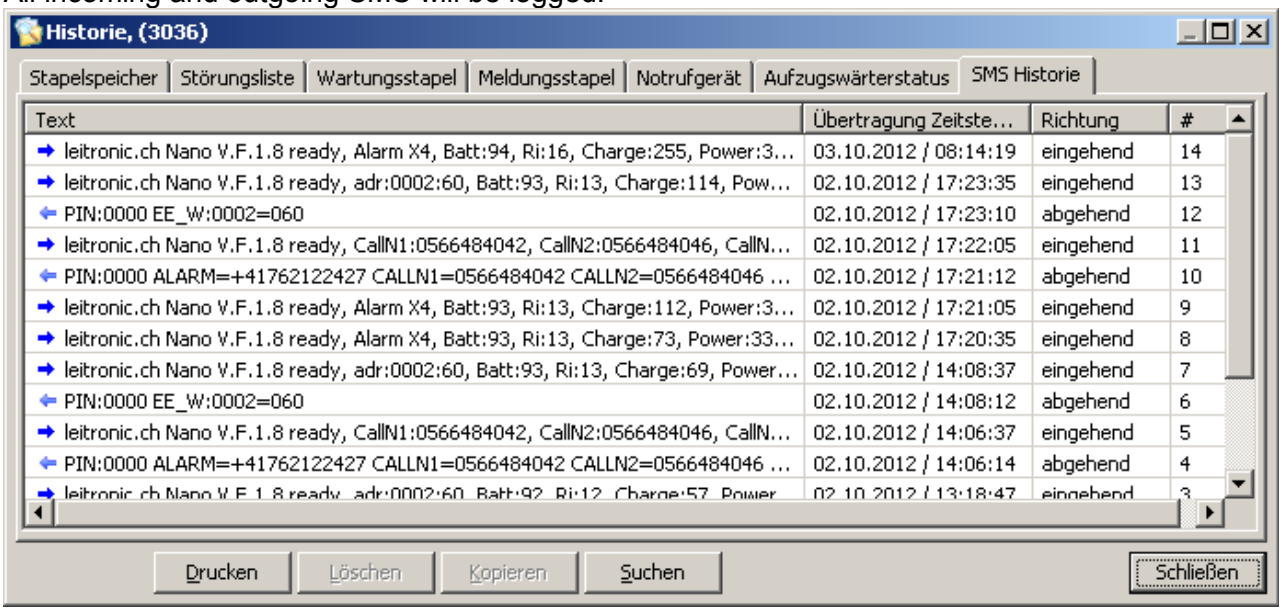
Emerg.Call.Dev. ☞ select GSM-Nano ☞ Properties:

- Incoming Phone Number: Extension number
- Outgoing Phone Number: Extension number
  ☞ only to specify, if the callback number is not the same as the incoming phone number
- Current Pincode/ID: 4digits
  ☞ **Check label on SW-module: 0000 / 1010**
- New Pincode/ID: 4digits
- Dial up numbers (emergency call) CALLN1 to CALLN8
- Dial up for verification call CALLN9
- Timespan between two calls: 1 to 255 h
- SMS-Status to: (Optional) Calling number, which directly receives an SMS in case of problem with GSM Nano. Can be disabled.
- Enter for additional settings
  ☞ Query / program additional parameters according to 10.1
- Send Parameter to Device
  ☞ send Status-SMS / PINs / calling numbers + additional parameter by SMS
- Factory default
  ☞ Reset GSM-Nano

SMS will be sent to GSM-Nano and saved in SMS-History ☞ 12.2

12.2 SMS-History

All incoming and outgoing SMS will be logged.



13 Short instruction for alarm receiver

13.1 Answering calls

Accept call ☞ Indication on communication unit 

The called party can initiate the following remote-commands:

DTMF key	Comment
0	**Terminate** call
1 or 3	**Renew connection** for another 120 seconds
2	Play **individual announcement** (Identification)
8	In case of an alarm call: Terminate connection and call next alarm-number In case of callback into cabin: Terminate connection and call number 8
# # # **or** * * #	Record **individual announcement** (12 seconds). After recording the new text will be announced.

Each call must be terminated by key 0. Otherwise GSM-Nano calls the next alarm-number. If the alarm remains **unacknowledged**, a **Status-SMS** will be sent with contents:

```
leitronic.ch Nano 3.xx ready, Emergency Call, Batt:96, Ri:18, Charge:255,
Power:34, last Call:26, Rssi:12(9-15), Errors:-----,*----,---
```

If there is a **change** of the door-state a Restore-SMS will be sent:

```
leitronic.ch Nano 3.xx ready, Emergency ended, Batt:96, Ri:18, Charge:255,
Power:34, last Call:26, Rssi:12(9-15), Errors:-----,*----,---
```

13.2 Callback into cabin

Call telephone number of the GSM-Nano. Ten seconds later you are connected with the cabin
☞ Indicated in the cabin by 

14 Machine room communication

To communicate with cabin lift handset and press key 1
☞ Indicated in the cabin by 

Disconnect by first pressing the 0 key and then hang up the phone.

DTMF key	Comment
0	Disconnect
1 or 3	**Activate cabin communication**
4	Activate SIR output to test siren
6	Deactivate SIR output

15 Maintenance protocol

Location of the installation : .....
.....
.....

EA-GSM-Interface

❑ EA-GSM-IP Article-No: 100.0804B
❑ EA-GSM-DIN Article-No: 100.0814B

installed by:

Company: .....

Mechanic: .....

Date: .....

Calling number of SIM-card: .....

PIN-Code of SIM-card: .....

15.1 Values of the battery/reception test: note within each maintenance

Status query by SMS

☞ send SMS with content
`PIN:0000`
`PIN:1010` M2M-SIM-Card
☞ Reply-SMS ☞ .. `Ri:<mom> Rssi:<mom>(<min>-<max>)` ..

Write down the values of the Reply-SMS into the table below: e.g.

`Ri:16` ☞ Battery-resistance 16
☞ Ri must be below 23 ☞ otherwise replace battery (after 1-2 years of operation)
e.g. `Rssi:12(9-18)` ☞ momentary=12, minimal=9, maximal=18
☞ Minimum value must be higher than 5!

Date	Tested by	Ri	Rssi:		
		<mom> **< 23 !**	<mom>	<min> **> 5 !**	<max>
1.1.2010	Mister Sample	12 ✔	15	9 ✔	18